

## ABSTRACT OF THE DISCLOSURE

5           A method of and system for authenticating concealed and statistically varying multi-dimensional data comprising: acquiring an initial measurement of an item, wherein the initial measurement is subject to measurement error; applying a transformation to the initial measurement to generate reference template data; acquiring a subsequent measurement of an item, wherein the subsequent  
10 measurement is subject to measurement error; applying the transformation to the subsequent measurement; and calculating a Euclidean distance metric between the transformed measurements; wherein the calculated Euclidean distance metric is identical to a Euclidean distance metric between the measurements prior to transformation.